IN THE UNITED STATES PATENT AND TRADEMARK OFFICE

In re Application of	Docker No.: **TI-35681**
William R. Krenik	Examiner: **Ajibade Akonai**
Serial No.: **10/679,818**	Art Unit: **2617**
Filed: **10/06/2003**	Confirm. No.: **3405**

For: **WIRELESSLY-LINKED, DISTRIBUTED RESOURCE CONTROL TO SUPPORT WIRELESS COMMUNICATION IN NON-EXCLUSIVE SPRECTRUM**

APPELLANTS' BRIEF – 37 C.F.R. § 1.192(c)

Commissioner for Patents
Alexandria, VA 22313-1450

Dear Sir:

This Appeal Brief is submitted in connection with the above-identified application in response to the final Office Action mailed March 31, 2006.

I. REAL PARTY IN INTEREST

Texas Instruments Incorporated is the real party in interest.

II. RELATED APPEALS AND INTERFERENCES

Appellants are unaware of any related appeals and interferences.

III. STATUS OF CLAIMS

Final rejection of Claims 1-31 was made by the Examiner in the Office Action dated March 31, 2006. Claims 1-31 are on appeal. Claims 1-31 are reproduced in the Appendix to Appellants' Brief filed herewith.

IV. STATUS OF AMENDMENTS

Applicants submitted to the USPTO an Amendment 37 CFR § 1.116 on August 18, 2006. In an Advisory Action mailed on November 16, 2006, Examiner states that Applicants arguments for allowability are not persuasive.

V. SUMMARY OF THE CLAIMED SUBJECT MATTER

A wirelessly-linked, distributed resource control (RCS1-RCSn, RCSB, RCC, ARM) supports a wireless communication system (50) for operation in non-exclusive spectrum (26-29). An available resource map (ARM) contains resource availability information gathered by mobile stations (MS1-MSn), and a wired communication channel supports sharing of resource control information among fixed-site stations (BS).

More specifically, independent Claim 1 requires and positively recites, a system for controlling allocation of wireless communication resources, comprising: "a first resource control segment (one of RCS1, RCS2 ... RCSn, RCSB; Figs. 3 & 10 (& corresponding description)) and a first wireless communication interface (11; Fig. 10 (& corresponding description) within selected above one of RCS1, RCS2 ... RCSn, RCSB; Figs. 3 & 10) connected to said first resource control segment", "a second resource control segment (another of RCS1, RCS2 ... RCSn; Figs. 3 & 10 (& corresponding description)), and a second wireless communication interface (11; Fig. 10 within selected above another of RCS1, RCS2 ... RCSn; Figs. 3 & 10 (& corresponding description)) connected to said second resource control segment, said second resource control segment and said second wireless communication interface provided together in a wireless mobile communication apparatus (MS1, MS2 ... MSn; Fig.3 (& corresponding description))", "said first and second wireless communication interfaces cooperable to couple said first and second resource control segments for wireless communication" and "said first and second resource control segments cooperable for making a resource allocation decision with respect to a wireless communication session involving the wireless mobile communication apparatus (p. 9, lines 7-14; p. 21, lines 17-22; p. 23, lines 15-22), said resource allocation decision including a determination to use, or not to use, frequency spectrum other than frequency spectrum utilized by cellular operators, for additional communication between said first and second wireless communication interfaces (p. 25, lines 5-10)".

Independent Claim 24 requires and positively recites, a system for controlling allocation of wireless communication resources, comprising: "a first resource control segment (one of RCS1, RCS2 ... RCSn, RCSB; Figs. 3 & 10 (& corresponding description)) and a first wireless communication interface (11; Fig. 10 (& corresponding description) within selected above one of RCS1, RCS2 ... RCSn, RCSB; Figs. 3 & 10 (& corresponding description)) connected to said first resource control segment", "a second resource control segment (another of RCS1, RCS2 ... RCSn; Figs. 3 & 10 (& corresponding description)), and a second wireless communication interface (11; Fig. 10

(& corresponding description) within selected above another of RCS1, RCS2 … RCSn; Figs. 3 & 10 (& corresponding description)) connected to said second resource control segment, said second resource control segment and said second wireless communication interface provided together in a wireless mobile communication apparatus (MS1, MS2 … MSn; Fig.3 (& corresponding description))", "said first and second wireless communication interfaces cooperable to couple said first and second resource control segments for wireless communication" and "said first and second resource control segments each sharing available resource map (ARM) information with the other (p. 8, lines 12-15; p. 9, lines 1-4; p. 21, lines 15-18; p. 23, lines 4-8) and thereafter arriving at an agreed upon resource allocation decision with respect to a wireless communication session involving the wireless mobile communication apparatus (p. 9, lines 7-14; p. 21, lines 17-22; p. 23, lines 15-22)".

Independent Claim 30 requires and positively recites a system for controlling allocation of wireless communication resources, comprising: "a first resource control segment (one of RCS1, RCS2 … RCSn, RCSB; Figs. 3 & 10 (& corresponding description)) having access to a first resource map (p. 28, lines 3-5), and a first wireless communication interface (11; Fig. 10 (& corresponding description) within selected above one of RCS1, RCS2 … RCSn, RCSB; Figs. 3 & 10 (& corresponding description)) connected to said first resource control segment", "a second resource control segment (another of RCS1, RCS2 … RCSn; Figs. 3 & 10 (& corresponding description)) having access to information in a second resource map (p. 28, lines 3-5), and a second wireless communication interface (11; Fig. 10 (& corresponding description) within selected above another of RCS1, RCS2 … RCSn; Figs. 3 & 10 (& corresponding description)) connected to said second resource control segment, said second resource control segment and said second wireless communication interface provided together in a wireless mobile communication apparatus (MS1, MS2 … MSn; Fig.3 (& corresponding description))", "said first and second wireless communication interfaces cooperable to couple said first and second resource control segments for wireless communication" and "said first and second resource control segments sharing information available from said first and second resource maps (p. 8, lines 12-15; p. 9, lines 1-4; p. 21, lines 15-18; p. 23, lines 4-8) and thereafter arriving at an agreed upon resource allocation decision with respect to a wireless communication session involving the wireless mobile communication apparatus (p. 9, lines 7-14; p. 21, lines 17-22; p. 23, lines 15-22)".

Independent Claim 31 requires and positively recites, a system for controlling allocation of wireless communication resources, comprising: "a first resource control segment (one of RCS1, RCS2 ... RCSn, RCSB; Figs. 3 & 10 (& corresponding description)) and a first wireless communication interface (11; Fig. 10 (& corresponding description) within selected above one of RCS1, RCS2 ... RCSn, RCSB; Figs. 3 & 10 (& corresponding description)) connected to said first resource control segment", "a second resource control segment (another of RCS1, RCS2 ... RCSn; Figs. 3 & 10 (& corresponding description)), and a second wireless communication interface (11; Fig. 10 (& corresponding description) within selected above another of RCS1, RCS2 ... RCSn; Figs. 3 & 10 (& corresponding description)) connected to said second resource control segment, said second resource control segment and said second wireless communication interface provided together in a wireless mobile communication apparatus (MS1, MS2 ... MSn; Fig.3 (& corresponding description))", "said first and second wireless communication interfaces cooperable to couple said first and second resource control segments for wireless communication" and "said first and second resource control segments each sharing with the other available transmit and receive frequencies and thereafter agreeing upon respective transmit and receive frequencies with respect to a wireless communication session involving the wireless mobile communication apparatus (p. 9, lines 1-14; p. 21, lines 17-22)".

VI. GROUNDS OF REJECTION TO BE REVIEWED ON APPEAL

1) Are Claims 24-27, 30 and 31 patentable under 35 U.S.C. 102(e) as being anticipated by Auckland et al (Patent Application 20030078037)?

2) Are Claims 1, 2, 5, 6, 7, 8, 18, 19, 22, 23, 28 and 29 patentable under 35 U.S.C. 103(a) as being unpatentable over Grosuch et al. [2004/0157617] in view of Auckland et al [2003/0078037]?

3) Are Claims 3 and 4 patentable under 35 U.S.C. 103(a) as being unpatentable over Gorsuch et al [2004/0157617] in view of Auckland et al [2003/0078037] as applied to claim 1 above, and further in view of Veerasamy [U.S. Patent number 6,208,865]?

4) Are Claims 10, 11, 12, 14 and 15 patentable under 35 U.S.C. 103(a) as being unpatentable over Gorsuch et al (20040157617) in view of Auckland et al (20030078037) and further in view of Kataoka (20030171124)?

5) Are Claims 20 and 21 patentable under 35 U.S.C. 103(a) as being unpatentable over Gorsuch et al (20040157617)) in view of Auckland et al (20030078037) and further in view of Robert et al (6,104,712)?

6) Is Claim 13 patentable under 35 U.S.C. 103(a) as being unpatentable over Gorsuch et al (20040157617)) in view of Auckland et al (20030078037) and further in view of Kataoka (20030171124) as applied to Claim 10 above, and further in view of Wieczorek et al (6,125,278)?

7) Are Claims 16 and 17 patentable under 35 U.S.C. 103(a) as being unpatentable over Gorsuch et al (20040157617)) in view of Auckland et al (20030078037)

and further in view of Kataoka (20030171124) as applied to Claim 14 above, and further in view of Meadows et al (6,716,101)?

VII. ARGUMENTS

1) Claims 24-27, 30 and 31 stand rejected under 35 U.S.C. 102(e) as being anticipated by Auckland et al (Patent Application 20030078037). Appellants respectfully traverse this rejection, as set forth below.

In order that the rejection of Claims 24-27, 30 and 31 be sustainable, it is fundamental that "each and every element as set forth in the claim be found, either expressly or inherently described, in a single prior art reference." Verdegall Bros. v. Union Oil Co. of California, 2 USPQ2d 1051, 1053 (Fed. Cir. 1987). See also, Richardson v. Suzuki Motor Co., 9 USPQ2d 1913, 1920 (Fed. Cir. 1989), where the court states, "The identical invention must be shown in as complete detail as is contained in the ... claim".

Furthermore, "all words in a claim must be considered in judging the patentability of that claim against the prior art." In re Wilson, 424 F.2d 1382, 1385, 165 USPQ 494, 496 (CCPA 1970).

Independent Claim 24 requires and positively recites a system for controlling allocation of wireless communication resources, comprising: "a first resource control segment, and a first wireless communication interface connected to said first resource control segment", "a second resource control segment, and a second wireless communication interface connected to said second resource control segment, said second resource control segment and said second wireless communication interface provided together in a wireless mobile communication apparatus", "said first and second wireless communication interfaces cooperable to couple said first and second resource control segments for wireless communication;" and "said first and second resource control segments each **sharing available resource map** (ARM) information with the other", "and thereafter arriving at **an agreed upon resource allocation decision** with respect to a wireless communication session involving the wireless mobile communication apparatus".

Independent Claim 31 requires and positively recites a system for controlling allocation of wireless communication resources, comprising: "a first resource control segment, and a first wireless communication interface connected to said first resource control segment", "a second resource control segment, and a second wireless communication interface connected to said second resource control segment, said second resource control segment and said second wireless communication interface provided together in a wireless mobile communication apparatus", "said first and second wireless communication interfaces cooperable to couple said first and second resource control segments for wireless communication" and "said first and second resource control segments each **sharing available transmit and receive frequencies**", "and thereafter arriving at **an agreed upon resource allocation decision** with respect to a wireless communication session involving the wireless mobile communication apparatus".

Therefore, **each of two devices** attempting to set up a communication channel contain a resource control "segment for allocation of wireless communication resources." The two devices, through these separate resource control segments (RCS), cooperate and communicate their knowledge of the radio environment through the "sharing of their available resource map (ARM) information" with each other (page 9, lines 1-4 and page 14, lines 5-9). **Through the RCS, the two devices agree upon resource** (such as transmit and receive frequencies, power levels and data rates) **allocation** and commence communications, irrespective of licensed or unlicensed bands.

In contrast, Auckland discloses a portable wireless device that allows autonomous roaming across multiple cellular air interface standards and frequencies (page 1, title). Auckland's invention **requires a basestation to tell the handset what frequencies are to be used for communication**. There is no agreement between the two devices regarding a "system for controlling allocation of wireless communication resources".

What the examiner identifies as a first RCS is merely a control circuit 1716 and memory 1718, see fig. 17, p.10, [0140]-[0141], which implement the wireless protocol and frequency **assigned by the base station**. The Examiner's definition of the first RCS in Auckland has no ability to communicate its knowledge of the radio environment "through sharing ... information with the other" transceiver as required in Claims 24 and 31.

The examiner then identifies a second RCS, in the base station, arguing that this RCS performs "infrastructure authentication and session management controller 2028 and customization data 2030", see fig. 20, p.13, [0174]. He includes the definition of a second wireless communication interface connected to said second resource control segment (RF to IF section 2002 with receive antenna 2008 and transmit antenna 2010, see fig. 20, p.13 [0169, 0170]).

In contrast, a preferred embodiment of the invention discloses that **each** mobile station **and any** involved base stations **contain a separate RCS**, upon which the peers set up the communications link in a cooperable agreement (page 6, line 8 through page 7, line 9). Under the examiner's definition, the second RCS fails to communicate with the first RCS to establish a communication channel via the exchange of the available resource map. The examiner points to a paragraph defining the block diagram of a mobile unit communicating with a base station, but he fails to show the first and second

RCS "each sharing available resource map (ARM) information (data identifying new AIS or new characteristics of an AIS for use by the radio, see fig. 18, p.10, [0147]) with the other. There is no cooperable (bi-directional) sharing between devices.

In a preferred embodiment of the present invention, when the two RCS share the ARM information, decisions on air interface and frequency are made, in addition to (page 3, line 10-11) "combinations of characteristics such as data rate, latency, QoS (quality of service) and range. Indeed, the present invention goes far beyond the conventional base-station-to-mobile command structure (frequency assignment in the licensed band and air interface standard) outlined by Auckland. The present invention includes sharing the aforementioned data rate, latency, QoS and range along with device functional capability. Additionally, the decision as to these six parameters is made between the two RCS via the Available Resource Map.

In contrast, the radio outlined by Auckland **cannot** **agree "upon** ***resource*** **allocation** ***decision*** *with respect to a wireless communication session involving* the wireless mobile communication apparatus" (a remote radiotelephone 1704 communicating with base station 1702 ***receives signals indicating a new air interface standard AIS from the base station*** and the base station directs a switch to a new AIS such as from CDMA at 800MHz to GSM at 1900MHz, see figs. 17 and 18; p.10, [0140], [0147]) because that decision is made at the cellular network controller which commands the base station to direct the mobile to the required AIS. In no case is a cooperable, two-way decision made between the mobile station and the base station in a cellular system.

In another example, Auckland's radio is re-configured "**in response** to an indication, command or control data received over a radio link" (p. 11, [0149]). The Auckland radio and discussion of the cellular system **cannot agree "upon** ***resource***

allocation ***decision*** *with respect to a wireless communication session involving* the wireless mobile communication apparatus" as the "base station may specify a completely different air interface standard than is currently in use" [0147]. The Auckland radio responds to air link commands but does not cooperate in the decisions regarding AIS, as required by Claims 24 and 31. Accordingly, the 35 U.S.C. 102(e) rejections of Claims 24 and 31 are overcome.

Dependent claims 25, 26, and 27 further define the structure of Claim 24 wherein "the first and second resource control segments each sharing available resource map (ARM) information with the other and thereafter arriving at an agreed upon resource allocation decision with respect to a wireless communication session involving the wireless mobile communication apparatus." In Claim 25 the first and second wireless communications interfaces communicate with each other to determine the un-used frequencies in their realms, thereby eliminating the well-known 'hidden node' problem of interfering with a third transceiver not seen by one of the two devices. In Claim 26 the resource allocation decision includes the use of non-cellular frequency channels allowing the efficient use of un-licensed spectrum. In Claim 27, the first resource control segment and first wireless communication interface are co-located in a second wireless mobile communication apparatus, so that two ARM-enabled mobiles can agree upon a resource allocation decision and commence a wireless communication session. In all cases, Auckland fails to teach or suggest, as noted above, "the first and second resource control segments each sharing available resource map (ARM) information with the other and thereafter arriving at an agreed upon resource allocation decision with respect to a wireless communication session involving the wireless mobile communication apparatus." Accordingly, the 35 U.S.C. 102(e) rejections of Claims 25, 26 and 27 are erroneous and must be withdrawn.

Independent Claim 30 requires and positively recites a system for controlling allocation of wireless communication resources, comprising: "a first resource control segment having access to information in a first resource map, and a first wireless communication interface connected to said first resource control segment;" "a second resource control segment having access to information in a second resource map, and a second wireless communication interface connected to said second resource control segment, said second resource control segment and said second wireless communication interface provided together in a wireless mobile communication apparatus;" "said first and second wireless communication interfaces cooperable to couple said first and second resource control segments for wireless communication;" and "said first and second resource control segments each **sharing information available from said first and second resource maps** and thereafter arriving at **an agreed upon resource allocation decision** with respect to a wireless communication session involving the wireless mobile communication apparatus.

In contrast, Auckland discloses a radio for use in a cellular telephone which contains a control circuit 1716 for controlling the transceiver configuration to a specific AIS, a memory 1718 for storing the parameters of a specific cellular AIS and a method of receiving radio signals defining the AIS [0147] and Figure 18. Auckland makes no mention of an available resource map which identifies measured spectral resources at a given transceiver. Auckland fails to identify a first wireless communication interface connected to said first resource control segment. The user interface identified as 1720 typically consists of "a display, a keypad, a microphone and a speaker", none of which enable radio resources to be allocated to available spectrum. Therefore, Auckland's user interface identified at 1720 is not the "first wireless communication interface connected to said first resource control segment" of Claim 30. Accordingly, the 35 U.S.C. 102(e) rejection of Claim 30 is erroneous and must be reversed.

2) Claims 1, 2, 5, 6, 7, 8, 18, 19, 22, 23, 28 and 29 stand rejected under 35 U.S.C. 103(a) as being unpatentable over Grosuch et al. [2004/0157617] in view of Auckland et al [2003/0078037]. Appellants respectfully traverse this rejection as follows:

Independent Claim 1, as amended, requires and positively recites system for controlling allocation of wireless communication resources, comprising: "a first resource control segment, and a first wireless communication interface connected to said first resource control segment", "a second resource control segment, and a second wireless communication interface connected to said second resource control segment, said second resource control segment and said second wireless communication interface provided together in a wireless mobile communication apparatus", "said first and second wireless communication interfaces cooperable to couple said first and second resource control segments for wireless communication" and "said first and second resource control segments cooperable for making a resource allocation decision with respect to a wireless communication session involving the wireless mobile communication apparatus, said **resource allocation decision including a determination to use, or not to use, frequency spectrum other than frequency spectrum utilized by cellular operators, for additional communication between said first and second wireless communication interfaces.**

In contrast, Gorsuch et al. discloses a technique for transmission of wireless signals across CDMA radio links. Bandwidth is **allocated dynamically within a session to specific CDMA subscriber unit based upon data rate determinations** (Abstract, lines 1-4). Being that Gorsuch teaches the base station allocates frequencies (data rate) dynamically via "subchannel requests" to the base station 170 [0051] through "appropriate commands … sent to the channel multiplexer 428 to request one or more required subchannels 300 over the radio links 160 for communication" [0050], it is clear that the base station defines the frequencies of communication along with the data rate, via the number of subchannels, allocated to the mobile. Gorsuch clearly teaches that the mobile has no choice in the matter of frequency assignment nor subchannel allocation [0051 and 0050].

In addition, Claim 1 requires and positively recites "said first and second resource control segments **cooperable for making a resource allocation decision** with respect to a wireless communication session involving the wireless mobile communication apparatus". As such the first and second resource control segments work together to arrive at a mutually agreeable communication solution. In contrast, Gorsuch et al. discloses a system, similar to that of Auckland, in which **the base station commands** the subscriber unit to modify its operating characteristics. Gorsuch et al. fails to teach or suggest any degree of cooperation between mobile and base station for making a resource allocation decision, as required by Claim 1.

Appellants respectfully disagree with the Examiner's analysis of Gorsuch in view of Auckland. The Examiner writes that Auckland discloses "a remote **radiotelephone** 1704 communicating with base station 1702 **receives signals** indicating a new air interface standard AIS **from the base station** and a switch is made to the new standard such as from CDMA at 800MHz to GSM at 1900MHz, see figs. 17 and 18, p.10 [0140], [0147]". It is clear from the reference that the mobile telephone is commanded by the base station to change to the new air interface standard. Being that **Auckland does not enable the mobile to make decisions**, it fails to teach or suggest that **the mobile cooperatively makes a spectral resource allocation decision,** as required by Claim 1. Accordingly, the 35 U.S.C. 103(a) rejection of Claim 1 is erroneous and must be reversed.

Claims 2, 5, 6, 7, 8, 18, 19, 22, 23, 28 and 29 stand allowable as depending from allowable claims and including further limitations not taught or suggested by the references of record.

Claims 2, 5, 6, 7, 8, 18, 19, 22, 23, 28 and 29 further define the structure of Claim 1, wherein the first and second resource control segments are **cooperable for making a resource allocation decision**. Being that Auckland does not enable the mobile to make decisions, it fails to teach or suggest that **the mobile cooperatively makes a spectral resource allocation decision,** as required by Claims 2, 5, 6, 7, 8, 18, 19, 22, 23, 28 and 29 which depend upon Claim 1.

In proceedings before the Patent and Trademark Office, "the Examiner bears the burden of establishing a prima facie case of obviousness based upon the prior art". In re Fritch, 23 USPQ2d 1780, 1783 (Fed. Cir. 1992) (citing In re Piasecki, 745 F.2d 1468, 1471-72, 223 USPQ 785, 787-88 (Fed. Cir. 1984). "The Examiner can satisfy this burden **only by showing some objective teaching in the prior art or that knowledge generally available to one of ordinary skill in the art would lead that individual to combine the relevant teachings of the references**", In re Fritch, 23 USPQ2d 1780, 1783 (Fed. Cir. 1992)(citing In re Fine, 837 F.2d 1071, 1074, 5 USPQ2d 1596, 1598 (Fed. Cir. 1988)(citing In re Lalu, 747 F.2d 703, 705, 223 USPQ 1257, 1258 (Fed. Cir. 1988)).

Although couched in terms of combining teachings found in the prior art, the same inquiry must be carried out in the context of a purported obvious "modification" of the prior art. **The mere fact that the prior art may be modified in the manner suggested by the Examiner does not make the modification obvious unless the prior art suggested the desirability of the modification.** In re Gordon, 733 F.2d at 902, 221 USPQ at 1127. Moreover, **it is impermissible to use the claimed invention as an instruction manual or**

"template" to piece together the teachings of the prior art so that the claimed invention is rendered obvious. In re Gorman, 933 F.2d 982, 987, 18 USPQ2d 1885, 1888 (Fed.Cir.1991). See also Interconnect Planning Corp. v. Feil, 774 F.2d 1132, 1138, 227 USPQ 543, 547 (Fed.Cir.1985).

Furthermore, "all words in a claim must be considered in judging the patentability of that claim against the prior art." In re Wilson, 424 F.2d 1382, 1385, 165 USPQ 494, 496 (CCPA 1970). It is clear from the above analysis that all of the words of Claims 3 and 4 cannot be found in a combination of the Gorsuch, and Auckland references, as is required by law. As such, the 35 U.S.C. 103(a) rejection of Claims 2, 5, 6, 7, 8, 18, 19, 22, 23, 28 and 29 is erroneous and must be reversed.

3) Claims 3 and 4 stand rejected under 35 U.S.C. 103(a) as being unpatentable over Gorsuch et al [2004/0157617] in view of Auckland et al [2003/0078037] as applied to claim 1 above, and further in view of Veerasamy [U.S. Patent number 6,208,865]. Appellants respectfully traverse this rejection as follows:

Independent Claim 1, as amended, requires and positively recites, a system for controlling allocation of wireless communication resources, comprising: “a first resource control segment, and a first wireless communication interface connected to said first resource control segment”, “a second resource control segment, and a second wireless communication interface connected to said second resource control segment, said second resource control segment and said second wireless communication interface provided together in a wireless mobile communication apparatus”, “said first and second wireless communication interfaces cooperable to couple said first and second resource control segments for wireless communication” and “said first and second resource control segments cooperable for making a resource allocation decision with respect to a wireless communication session involving the wireless mobile communication apparatus, said **resource allocation decision including a determination to use, or not to use, frequency spectrum other than frequency spectrum utilized by cellular operators, for additional communication between said first and second wireless communication interfaces**".

In contrast, Gorsuch et al. discloses a technique for transmission of wireless signals across CDMA radio links. Bandwidth is **allocated dynamically within a session to specific CDMA subscriber unit based upon data rate determinations** (Abstract, lines 1-4). Being that Gorsuch teaches allocating frequencies dynamically to "specific CDMA subscriber unit", it fails to teach or suggest, "… **a determination to use, or not to use, frequency spectrum other than frequency spectrum utilized by cellular operators** …", as required by Claim 1.

Even if, arguendo, Veerasamy teaches what is suggested by the Examiner on page 6, line 22 – page 7, line 6 of the Office Action dated July 27, 2005, Veerasamy fails to teach or suggest, "… **a determination to use, or not to use, frequency spectrum other than frequency spectrum utilized by cellular operators** …", as required by Claim 1.

Dependent Claim 3 further defines the system of Claim 1. Claim 3 requires and positively recites: "wherein said resource control segments are cooperable for deciding that a further wireless communication session will be discontinued because the further wireless communication session uses resources already allocated to the first-mentioned wireless communication session". This restriction adds that the later wireless communication session is discontinued due to its need of resources (frequency, location, etc.) that have previously been allocated to another wireless communication session.

Regarding Claim 3, Veerasamy shows a method of assigning priority to various subscribers, Figure 3. In this method, the "base station distinguished between a regular or high priority subscriber. The base station may also distinguish between a regular, high or low priority call", Column 3, lines 64-65. The customer can "designate himself as a high, low or regular priority user..." Column 4, lines 44-46, and is given an option, "asked via beep, tone message or orally whether he/she would accept a low priority connection", Column 4, lines 58-60, where they will be at more risk to being dropped from the base station, "dropped due to being 'trumped' by a high priority call which needs the channel". Being that Veerasamy presents a method in which a further wireless communication session can cause a prior session to be discontinued, it fails to teach or suggest a communication system in which "a further wireless communication session will be discontinued because the further wireless communication session uses resources already allocated to the first-mentioned wireless communication session". Accordingly, the 35 U.S.C. 103(a) rejection of Claim 3 is erroneous and must be reversed.

Dependent Claim 4 further defines the system of Claim 3. Claim 4 requires and positively recites: "wherein said first resource control segment is provided in a further wireless mobile communication apparatus involved in the further communication session". This restriction adds that a new wireless communication apparatus contains a resource control segment and that it is a mobile wireless device. Being that Veerasamy presents a method for a base station to use in prioritizing mobile calls, it fails to teach or suggest that "the mobile subscriber unit 10A" contains a resource control segment. In fact, Veerasamy states than "when a user of a wireless or cellular mobile subscriber unit or device uses the mobile subscriber unit, one of, for example 21 to 333 channels are selected by a base station for carrying the call", column 3, lines 16-19. He also incorrectly states that the mobile selects the "strongest channel signal from a base station", column 3, lines 19-20. The mobile requests that the Mobile Switching Center (MSC) agree to its desire to communicate with the strongest base station signal, but this selection is made by the MSC, not the mobile. The MSC is responsible to insure that a given base station is not overloaded. If a base station is near capacity, the MSC will direct the mobile to associate itself with another nearby base station. Veerasamy fails to teach or suggest that the mobile station contains a capability to allocate resources in a resource control segment, a "first resource control segment (is) provided in a further wireless mobile communication apparatus involved in the further communication session" as required by Claim 4 which depends on Claim 3 which depends on Claim 1.

Appellants respectfully disagree with the Examiner's analysis of Gorsuch in view of Auckland to the extent that Auckland discloses "a remote **radiotelephone** 1704 communicating with base station 1702 **receives signals** indicating a new air interface standard AIS **from the base station** and a switch is made to the new standard such as from CDMA at 800MHz to GSM at 1900MHz, see figs. 17 and 18, p.10 [0140], [0147]". It is clear from the reference that the mobile telephone is commanded by the base station to change to the new air interface standard. Being that **Auckland does not enable the mobile to make decisions**, it fails to teach or suggest that **the mobile cooperatively makes a spectral resource allocation decision,** as required by Claim 1. Accordingly, the 35 U.S.C. 103(a) rejection of Claim 4 is erroneous and must be reversed.

In proceedings before the Patent and Trademark Office, "the Examiner bears the burden of establishing a prima facie case of obviousness based upon the prior art". In re Fritch, 23 USPQ2d 1780, 1783 (Fed. Cir. 1992) (citing In re Piasecki, 745 F.2d 1468, 1471-72, 223 USPQ 785, 787-88 (Fed. Cir. 1984). "The Examiner can satisfy this burden **only by showing some objective teaching in the prior art or that knowledge generally available to one of ordinary skill in the art would lead that individual to combine the relevant teachings of the references**", In re Fritch, 23 USPQ2d 1780, 1783 (Fed. Cir. 1992)(citing In re Fine, 837 F.2d 1071, 1074, 5 USPQ2d 1596, 1598 (Fed. Cir. 1988)(citing In re Lalu, 747 F.2d 703, 705, 223 USPQ 1257, 1258 (Fed. Cir. 1988)).

Although couched in terms of combining teachings found in the prior art, the same inquiry must be carried out in the context of a purported obvious "modification" of the prior art. **The mere fact that the prior art may be modified in the manner suggested by the Examiner does not make the modification obvious unless the prior art suggested the desirability of the modification**. In re Gordon, 733 F.2d at 902, 221 USPQ at 1127. Moreover, **it is impermissible to use the claimed invention as an instruction manual or "template" to piece together the teachings of the prior art so that the claimed invention is rendered obvious**. In re Gorman, 933 F.2d 982, 987, 18 USPQ2d 1885, 1888 (Fed.Cir.1991). See also Interconnect Planning Corp. v. Feil, 774 F.2d 1132, 1138, 227 USPQ 543, 547 (Fed.Cir.1985).

Furthermore, "all words in a claim must be considered in judging the patentability of that claim against the prior art." In re Wilson, 424 F.2d 1382, 1385, 165 USPQ 494, 496 (CCPA 1970). It is clear from the above analysis that all of the words of Claims 3 and 4 cannot be found in a combination of the Gorsuch, Auckland and Veerasamy references, as is required by law. As such, the 35 U.S.C. 103(a) rejection of Claims 3 and 4 must be withdrawn.

4) Claims 10, 11, 12, 14 and 15 stand rejected under 35 U.S.C. 103(a) as being unpatentable over Gorsuch et al (20040157617) in view of Auckland et al (20030078037) and further in view of Kataoka (20030171124). Appellants respectfully traverse this rejection as follows:

Claim 10 further defines the system of Claim 1, wherein said first and second resource control segments are cooperable for communicating among one another information indicative of a likelihood of successful execution of the communication session.

Claim 11 further defines the system of Claim 10, wherein said first resource control segment is provided in a further wireless communication apparatus involved in the communication session.

Claim 12 further defines the system of Claim 11, wherein the further wireless communication apparatus is a mobile wireless communication apparatus.

Claim 14 further defines the system of Claim 10, wherein said first resource control segment is provided with an information storage apparatus for storing the first resource control segment information in a non-volatile manner.

Claim 15 further defines the system of Claim 14, wherein said first and second wireless communication interfaces are cooperable for wireless transmission of said stored information from the second resource control segment to the first RCS.

Claim 15 depends directly from Claim 14. Claim 14 depends from Claim 10. Claim 10 depends from Claim 1. Claim 11 depends from Claim 10. Claim 12 depends from Claim 11. Independent Claim 1, as amended, requires and positively recites, a system for controlling allocation of wireless communication resources, comprising: "a first resource control segment, and a first wireless communication interface connected to said first resource control segment", "a second resource control segment, and a second wireless communication interface connected to said second resource control segment, said second resource control segment and said second wireless communication interface provided together in a wireless mobile communication apparatus", "said first and second wireless communication interfaces cooperable to couple said first and second resource control segments for wireless communication" and "said first and second resource control segments cooperable for making a resource allocation decision with respect to a wireless communication session involving the wireless mobile communication apparatus, said **resource allocation decision including a determination to use, or not to use, frequency spectrum other than frequency spectrum utilized by cellular operators, for additional communication between said first and second wireless communication interfaces**".

In contrast, Gorsuch et al. discloses a technique for transmission of wireless signals across CDMA radio links. Bandwidth is **allocated dynamically within a session to specific CDMA subscriber unit based upon data rate determinations** (Abstract, lines 1-4). Being that Gorsuch teaches allocating frequencies dynamically to "specific CDMA subscriber unit", it fails to teach or suggest, "… **a determination to use, or not to use, frequency spectrum other than frequency spectrum utilized by cellular operators** …", as required by Claim 1.

Appellants respectfully disagree with Examiner's analysis of Gorsuch in view of Auckland. The Examiner writes that Auckland discloses "a remote **radiotelephone** 1704 communicating with base station 1702 **receives signals** indicating a new air interface standard AIS **from the base station** and a switch is made to the new standard such as from CDMA at 800MHz to GSM at 1900MHz, see figs. 17 and 18, p.10 [0140], [0147]". It is clear from the reference that the mobile telephone is commanded by the base station to change to the new air interface standard. Being that **Auckland does not enable the mobile to make decisions**, it fails to teach or suggest that **the mobile cooperatively makes a spectral resource allocation decision,** as required by Claim 1.

Even if, arguendo, Kataoka teaches what is suggested by the Examiner on page 8, lines 4-11 of the Office Action dated July 27, 2005, Kataoka fails to teach or suggest, "… **a determination to use, or not to use, frequency spectrum other than frequency**

spectrum utilized by cellular operators ...", as required by Claim 1. Claim 10 depends from Claim 1 and is allowable for the same reasons set forth above in support of the allowance of Claim 1. Claim 11 depends from Claim 10 and is therefore allowable for the reasons given above for the allowance of Claim 10. Claim 12 depends from Claim 11 and is therefore allowable for the reasons given above for the allowance of Claim 11. Claim 14 depends from Claim 10 and is therefore allowable for the reasons given above for the allowance of Claim 10. Claim 15 depends from Claim 14 and is therefore allowable for the reasons given above for the allowance of Claim 14. The 35 U.S.C. 103(a) rejection of Claims 10, 11, 12, 14 and 15 is erroneous and must be reversed.

In proceedings before the Patent and Trademark Office, "the Examiner bears the burden of establishing a prima facie case of obviousness based upon the prior art". In re Fritch, 23 USPQ2d 1780, 1783 (Fed. Cir. 1992) (citing In re Piasecki, 745 F.2d 1468, 1471-72, 223 USPQ 785, 787-88 (Fed. Cir. 1984). "The Examiner can satisfy this burden **only by showing some objective teaching in the prior art or that knowledge generally available to one of ordinary skill in the art would lead that individual to combine the relevant teachings of the references**", In re Fritch, 23 USPQ2d 1780, 1783 (Fed. Cir. 1992)(citing In re Fine, 837 F.2d 1071, 1074, 5 USPQ2d 1596, 1598 (Fed. Cir. 1988)(citing In re Lalu, 747 F.2d 703, 705, 223 USPQ 1257, 1258 (Fed. Cir. 1988)).

Although couched in terms of combining teachings found in the prior art, the same inquiry must be carried out in the context of a purported obvious "modification" of the prior art. **The mere fact that the prior art may be modified in the manner suggested by the Examiner does not make the modification obvious unless the prior art suggested the desirability of the modification**. In re Gordon, 733 F.2d at 902, 221 USPQ at 1127. Moreover, **it is impermissible to use the claimed invention as an instruction manual or "template" to piece together the teachings of the prior art so that the claimed invention is rendered obvious**. In re Gorman, 933 F.2d 982, 987, 18 USPQ2d 1885, 1888

(Fed.Cir.1991). See also Interconnect Planning Corp. v. Feil, 774 F.2d 1132, 1138, 227 USPQ 543, 547 (Fed.Cir.1985).

Furthermore, "all words in a claim must be considered in judging the patentability of that claim against the prior art." In re Wilson, 424 F.2d 1382, 1385, 165 USPQ 494, 496 (CCPA 1970). It is clear from the above analysis that all of the words of Claims 10, 11, 12, 14 and 15 cannot be found in a combination of the Gorsuch, Auckland and Kataoka references, as is required by law. As such, the 35 U.S.C. 103(a) rejection of Claims 10, 11, 12, 14 and 15 is erroneous and must be reversed.

5) Claims 20 and 21 stand rejected under 35 U.S.C. 103(a) as being unpatentable over Gorsuch et al (20040157617)) in view of Auckland et al (20030078037) and further in view of Robert et al (6,104,712). Appellants respectfully traverse this rejection as follows:

Claim 20 further defines the system of Claim 1, wherein said resource control segments are cooperable for determining a distance over which the communication session will be conducted, and are further cooperable for selecting a frequency channel for the communication session based on said distance.

Claim 21 further defines the system of Claim 20, wherein said resource control segments are cooperable to select for the communication session one of a frequency channel at a relatively lower frequency if the communication session will be conducted over a relatively longer distance and a frequency channel at a relatively higher frequency if the communication session will be conducted over a relatively shorter distance.

Claim 20 depends directly from Claim 1. Claim 21 depends from Claim 20. Independent Claim 1, as amended, requires and positively recites, a system for controlling allocation of wireless communication resources, comprising: "a first resource control segment, and a first wireless communication interface connected to said first resource control segment", "a second resource control segment, and a second wireless communication interface connected to said second resource control segment, said second resource control segment and said second wireless communication interface provided together in a wireless mobile communication apparatus", "said first and second wireless communication interfaces cooperable to couple said first and second resource control segments for wireless communication" and "said first and second resource control segments cooperable for making a resource allocation decision with respect to a wireless communication session involving the wireless mobile communication apparatus, said **resource allocation decision including a determination to use, or not to use, frequency spectrum other than frequency spectrum utilized by cellular operators, for additional communication between said first and second wireless communication interfaces**".

In contrast, Gorsuch et al. discloses a technique for transmission of wireless signals across CDMA radio links. Bandwidth is **allocated dynamically within a session to specific CDMA subscriber unit based upon data rate determinations** (Abstract, lines 1-4). Being that Gorsuch teaches allocating frequencies dynamically to "specific CDMA subscriber unit", it fails to teach or suggest, "... **a determination to use, or not to use, frequency spectrum other than frequency spectrum utilized by cellular operators** ...", as required by Claim 1.

Appellants respectfully disagree with Examiner's analysis of Gorsuch in view of Auckland. The Examiner writes that Auckland discloses "a remote **radiotelephone** 1704 communicating with base station 1702 **receives signals** indicating a new air interface standard AIS **from the base station** and a switch is made to the new standard such as from CDMA at 800MHz to GSM at 1900MHz, see figs. 17 and 18, p.10 [0140], [0147]". It is clear from the reference that the mobile telephone is commanded by the base station to change to the new air interface standard. Being that **Auckland does not enable the mobile to make decisions**, it fails to teach or suggest that **the mobile cooperatively makes a spectral resource allocation decision,** as required by Claim 1.

Even if, arguendo, Roberts teaches what is suggested by the Examiner on page 10, lines 3-10 of the Office Action dated July 27, 2005, Roberts fails to teach or suggest, "... **a determination to use, or not to use, frequency spectrum other than frequency spectrum utilized by cellular operators** ...", as required by Claim 1. Claim 20 depends from Claim 1 and is allowable for the same reasons set forth above in support of the allowance of Claim 1. Claim 21 depends from Claim 20 and is therefore allowable for the reasons given above for the allowance of Claim 20. The 35 U.S.C. 103(a) rejection of Claims 20 and 21 is erroneous and must be reversed.

In proceedings before the Patent and Trademark Office, "the Examiner bears the burden of establishing a prima facie case of obviousness based upon the prior art". In re Fritch, 23 USPQ2d 1780, 1783 (Fed. Cir. 1992) (citing In re Piasecki, 745 F.2d 1468, 1471-72, 223 USPQ 785, 787-88 (Fed. Cir. 1984). "The Examiner can satisfy this burden **only by showing some objective teaching in the prior art or that knowledge generally available to one of ordinary skill in the art would lead that individual to combine the relevant teachings of the references**", In re Fritch, 23 USPQ2d 1780, 1783 (Fed. Cir. 1992)(citing In re Fine, 837 F.2d 1071, 1074, 5 USPQ2d 1596, 1598 (Fed. Cir. 1988)(citing In re Lalu, 747 F.2d 703, 705, 223 USPQ 1257, 1258 (Fed. Cir. 1988)).

Although couched in terms of combining teachings found in the prior art, the same inquiry must be carried out in the context of a purported obvious "modification" of the prior art. **The mere fact that the prior art may be modified in the manner suggested by the Examiner does not make the modification obvious unless the prior art suggested the desirability of the modification.** In re Gordon, 733 F.2d at 902, 221 USPQ at 1127. Moreover, **it is impermissible to use the claimed invention as an instruction manual or "template" to piece together the teachings of the prior art so that the claimed invention is rendered obvious.** In re Gorman, 933 F.2d 982, 987, 18 USPQ2d 1885, 1888 (Fed.Cir.1991). See also Interconnect Planning Corp. v. Feil, 774 F.2d 1132, 1138, 227 USPQ 543, 547 (Fed.Cir.1985).

Furthermore, "all words in a claim must be considered in judging the patentability of that claim against the prior art." In re Wilson, 424 F.2d 1382, 1385, 165 USPQ 494, 496 (CCPA 1970). It is clear from the above analysis that all of the words of Claims 20 and 21 cannot be found in a combination of the Gorsuch, Auckland and Robert references, as is required by law. As such, the 35 U.S.C. 103(a) rejection of Claims 20 and 21 is erroneous and must be reversed.

6) Claim 13 stands rejected under 35 U.S.C. 103(a) as being unpatentable over Gorsuch et al (20040157617)) in view of Auckland et al (20030078037) and further in view of Kataoka (20030171124) as applied to Claim 10 above, and further in view of Wieczorek et al (6,125,278). Appellants respectfully traverse this rejection as follows:

Claim 13 further defines the system of Claim 10, wherein said information includes one of information indicative of a location of the wireless mobile communication apparatus, information indicative of wireless communication channel conditions at the wireless mobile communication apparatus, information indicative of wireless communication resource use in a previous wireless communication session involving the wireless mobile communication apparatus, and information indicative of operational capabilities of the wireless mobile communication apparatus.

Claim 13 depends from Claim 10. Claim 10 depends directly from Claim 1. Independent Claim 1, as amended, requires and positively recites, a system for controlling allocation of wireless communication resources, comprising: "a first resource control segment, and a first wireless communication interface connected to said first resource control segment", "a second resource control segment, and a second wireless communication interface connected to said second resource control segment, said second resource control segment and said second wireless communication interface provided together in a wireless mobile communication apparatus", "said first and second wireless communication interfaces cooperable to couple said first and second resource control segments for wireless communication" and "said first and second resource control segments cooperable for making a resource allocation decision with respect to a wireless communication session involving the wireless mobile communication apparatus, said **resource allocation decision including a determination to use, or not to use, frequency spectrum other than frequency spectrum utilized by cellular operators, for additional communication between said first and second wireless communication interfaces**".

In contrast, Gorsuch et al. discloses a technique for transmission of wireless signals across CDMA radio links. Bandwidth is **allocated dynamically within a session to specific CDMA subscriber unit based upon data rate determinations** (Abstract, lines 1-4). Being that Gorsuch teaches allocating frequencies dynamically to "specific CDMA subscriber unit", it fails to teach or suggest, "... **a determination to use, or not to use, frequency spectrum other than frequency spectrum utilized by cellular operators** ...", as required by Claim 1.

Appellants respectfully disagree with Examiner's analysis of Gorsuch in view of Auckland. The Examiner writes that Auckland discloses "a remote **radiotelephone** 1704 communicating with base station 1702 **receives signals** indicating a new air interface standard AIS **from the base station** and a switch is made to the new standard such as from CDMA at 800MHz to GSM at 1900MHz, see figs. 17 and 18, p.10 [0140], [0147]". It is clear from the reference that the mobile telephone is commanded by the base station to change to the new air interface standard. Being that **Auckland does not enable the mobile to make decisions**, it fails to teach or suggest that **the mobile cooperatively makes a spectral resource allocation decision,** as required by Claim 1.

Even if, arguendo, Kataoka teaches what is suggested by the Examiner on page 8, lines 4-11 of the Office Action dated July 27, 2005, AND Wieczorek teaches what is suggested by the Examiner on page 12, lines 2-14 of the Office Action dated July 27, 2005, Kataoka and Wieczorek, alone or in combination, fail to teach or suggest, "… **a determination to use, or not to use, frequency spectrum other than frequency spectrum utilized by cellular operators** …", as required by Claim 1. Claim 10 depends from Claim 1. Claim 13 depends from Claim 10 and is allowable for the same reasons set forth above in support of the allowance of Claims 1 and 10. The 35 U.S.C. 103(a) rejection of Claim 13 is erroneous and must be reversed.

In proceedings before the Patent and Trademark Office, "the Examiner bears the burden of establishing a prima facie case of obviousness based upon the prior art". In re Fritch, 23 USPQ2d 1780, 1783 (Fed. Cir. 1992) (citing In re Piasecki, 745 F.2d 1468, 1471-72, 223 USPQ 785, 787-88 (Fed. Cir. 1984). "The Examiner can satisfy this burden **only by showing some objective teaching in the prior art or that knowledge generally available to one of ordinary skill in the art would lead that individual to combine the relevant teachings of the references**", In re Fritch, 23 USPQ2d 1780, 1783 (Fed. Cir. 1992)(citing In re Fine, 837 F.2d 1071, 1074, 5 USPQ2d 1596, 1598 (Fed. Cir. 1988)(citing In re Lalu, 747 F.2d 703, 705, 223 USPQ 1257, 1258 (Fed. Cir. 1988)).

Although couched in terms of combining teachings found in the prior art, the same inquiry must be carried out in the context of a purported obvious "modification" of the prior art. **The mere fact that the prior art may be modified in the manner suggested by the Examiner does not make the modification obvious unless the prior art suggested the desirability of the modification.** In re Gordon, 733 F.2d at 902, 221 USPQ at 1127. Moreover, **it is impermissible to use the claimed invention as an instruction manual or "template" to piece together the teachings of the prior art so that the claimed invention is rendered obvious.** In re Gorman, 933 F.2d 982, 987, 18 USPQ2d 1885, 1888 (Fed.Cir.1991). See also Interconnect Planning Corp. v. Feil, 774 F.2d 1132, 1138, 227 USPQ 543, 547 (Fed.Cir.1985).

Furthermore, "all words in a claim must be considered in judging the patentability of that claim against the prior art." In re Wilson, 424 F.2d 1382, 1385, 165 USPQ 494, 496 (CCPA 1970). It is clear from the above analysis that all of the words of Claim 13 cannot be found in a combination of the Gorsuch, Auckland, Kataoka and Wieczorek references, as is required by law. As such, the 35 U.S.C. 103(a) rejection of Claim 13 is erroneous and must be reversed.

7) Claims 16 and 17 stand rejected under 35 U.S.C. 103(a) as being unpatentable over Gorsuch et al (20040157617)) in view of Auckland et al (20030078037) and further in view of Kataoka (20030171124) as applied to Claim 14 above, and further in view of Meadows et al (6,716,101). Appellants respectfully traverse this rejection as follows:

Claim 16 further defines the system of Claim 14, wherein said information storage apparatus is provided in a data network.

Claim 17 further defines the system of Claim 16, wherein said data network includes the internet.

Claim 10 depends directly from Claim 1. Claim 14 depends from Claim 10. Claim 16 depends from Claim 14. Claim 17 depends from Claim 16. Independent Claim 1, as amended, requires and positively recites, a system for controlling allocation of wireless communication resources, comprising: "a first resource control segment, and a first wireless communication interface connected to said first resource control segment", "a second resource control segment, and a second wireless communication interface connected to said second resource control segment, said second resource control segment and said second wireless communication interface provided together in a wireless mobile communication apparatus", "said first and second wireless communication interfaces cooperable to couple said first and second resource control segments for wireless communication" and "said first and second resource control segments cooperable for making a resource allocation decision with respect to a wireless communication session involving the wireless mobile communication apparatus, said **resource allocation decision including a determination to use, or not to use, frequency spectrum other than frequency spectrum utilized by cellular operators, for additional communication between said first and second wireless communication interfaces**".

In contrast, Gorsuch et al. discloses a technique for transmission of wireless signals across CDMA radio links. Bandwidth is **allocated dynamically within a session to specific CDMA subscriber unit based upon data rate determinations** (Abstract, lines 1-4). Being that Gorsuch teaches allocating frequencies dynamically to "specific CDMA subscriber unit", it fails to teach or suggest, "... **a determination to use, or not to use, frequency spectrum other than frequency spectrum utilized by cellular operators** ...", as required by Claim 1.

Appellants respectfully disagree with Examiner's analysis of Gorsuch in view of Auckland. The Examiner writes that Auckland discloses "a remote **radiotelephone** 1704 communicating with base station 1702 **receives signals** indicating a new air interface standard AIS **from the base station** and a switch is made to the new standard such as from CDMA at 800MHz to GSM at 1900MHz, see figs. 17 and 18, p.10 [0140], [0147]". It is clear from the reference that the mobile telephone is commanded by the base station to change to the new air interface standard. Being that **Auckland does not enable the mobile to make decisions**, it fails to teach or suggest that **the mobile cooperatively makes a spectral resource allocation decision,** as required by Claim 1.

Even if, arguendo, Kataoka teaches what is suggested by the Examiner on page 8, lines 4-11 of the Office Action dated July 27, 2005, and Meadows teaches what is suggested by the Examiner on page 13, lines 4-7 of the Office Action dated July 27, 2005, Kataoka and Meadows, alone or in combination, fail to teach or suggest, "... **a determination to use, or not to use, frequency spectrum other than frequency spectrum utilized by cellular operators** ...", as required by Claim 1. Claim 16 depends from Claim 14, which depends from Claim 10, which depends from Claim 1 and is allowable for the same reasons set forth above in support of the allowance of Claims 1, 10 and 14. Claim 17 depends from Claim 16 and is therefore allowable for the reasons given above for the allowance of Claim 16. The 35 U.S.C. 103(a) rejection of Claims 16 and 17 is erroneous and must be reversed.

In proceedings before the Patent and Trademark Office, "the Examiner bears the burden of establishing a prima facie case of obviousness based upon the prior art". In re Fritch, 23 USPQ2d 1780, 1783 (Fed. Cir. 1992) (citing In re Piasecki, 745 F.2d 1468, 1471-72, 223 USPQ 785, 787-88 (Fed. Cir. 1984). "The Examiner can satisfy this burden **only by showing some objective teaching in the prior art or that knowledge generally available to one of ordinary skill in the art would lead that individual to**

combine the relevant teachings of the references", In re Fritch, 23 USPQ2d 1780, 1783 (Fed. Cir. 1992)(citing In re Fine, 837 F.2d 1071, 1074, 5 USPQ2d 1596, 1598 (Fed. Cir. 1988)(citing In re Lalu, 747 F.2d 703, 705, 223 USPQ 1257, 1258 (Fed. Cir. 1988)).

Although couched in terms of combining teachings found in the prior art, the same inquiry must be carried out in the context of a purported obvious "modification" of the prior art. **The mere fact that the prior art may be modified in the manner suggested by the Examiner does not make the modification obvious unless the prior art suggested the desirability of the modification**. In re Gordon, 733 F.2d at 902, 221 USPQ at 1127. Moreover, **it is impermissible to use the claimed invention as an instruction manual or "template" to piece together the teachings of the prior art so that the claimed invention is rendered obvious**. In re Gorman, 933 F.2d 982, 987, 18 USPQ2d 1885, 1888 (Fed.Cir.1991). See also Interconnect Planning Corp. v. Feil, 774 F.2d 1132, 1138, 227 USPQ 543, 547 (Fed.Cir.1985).

Furthermore, "all words in a claim must be considered in judging the patentability of that claim against the prior art." In re Wilson, 424 F.2d 1382, 1385, 165 USPQ 494, 496 (CCPA 1970). It is clear from the above analysis that all of the words of Claims 16 and 17 cannot be found in a combination of the Gorsuch, Auckland, Kataoka and Meadows references, as is required by law. As such, the 35 U.S.C. 103(a) rejection of Claims 16 and 17 is erroneous and must be reversed.

For the above reasons, favorable consideration of the appeal of the Final Rejection in the above-referenced application, and its reversal, are respectfully requested.

Respectfully submitted,

/Ronald O. Neerings/
Reg. No. 34,227
Attorney for Appellants

TEXAS INSTRUMENTS INCORPORATED
P.O. BOX 655474, M/S 3999
Dallas, Texas 75265
Phone: 972/917-5299
Fax: 972/917-4418

CLAIMS APPENDIX

CLAIMS ON APPEAL:

1. A system for controlling allocation of wireless communication resources, comprising:

a first resource control segment, and a first wireless communication interface connected to said first resource control segment;

a second resource control segment, and a second wireless communication interface connected to said second resource control segment, said second resource control segment and said second wireless communication interface provided together in a wireless mobile communication apparatus;

said first and second wireless communication interfaces cooperable to couple said first and second resource control segments for wireless communication; and

said first and second resource control segments cooperable for making a resource allocation decision with respect to a wireless communication session involving the wireless mobile communication apparatus, said resource allocation decision including a determination to use, or not to use, frequency spectrum other than frequency spectrum utilized by cellular operators, for additional communication between said first and second wireless communication interfaces.

2. The system of Claim 1, wherein said resource control segments are cooperable for selecting wireless communication resources for the communication session.

3. The system of Claim 1, wherein said resource control segments are cooperable for deciding that a further wireless communication session will be discontinued because the further wireless communication session uses resources already allocated to the first-mentioned wireless communication session.

4. The system of Claim 3, wherein said first resource control segment is provided in a further wireless mobile communication apparatus involved in the further communication session.

5. The system of Claim 1, wherein said resource control segments are cooperable for deciding that resources allocated for the wireless communication session will be released for use in a further wireless communication session that does not involve the wireless mobile communication apparatus.

6. The system of Claim 5, wherein said resource control segments are cooperable for deciding that the further communication session has a higher priority than the first-mentioned communication session to use communication resources currently allocated to the first-mentioned communication session.

7. The system of Claim 5, wherein said first resource control segment is provided in a further wireless mobile communication apparatus involved in the further communication session.

8. The system of Claim 1, wherein said first resource control segment is provided in a further wireless communication apparatus involved in the wireless communication session.

9. The system of Claim 8, wherein the further wireless communication apparatus is a mobile wireless communication apparatus.

10. The system of Claim 1, wherein said first and second resource control segments are cooperable for communicating among one another information indicative of a likelihood of successful execution of the communication session.

11. The system of Claim 10, wherein said first resource control segment is provided in a further wireless communication apparatus involved in the communication session.

12. The system of Claim 11, wherein the further wireless communication apparatus is a mobile wireless communication apparatus.

13. The system of Claim 10, wherein said information includes one of information indicative of a location of the wireless mobile communication apparatus, information indicative of wireless communication channel conditions at the wireless mobile communication apparatus, information indicative of wireless communication resource use in a previous wireless communication session involving the wireless mobile communication apparatus, and information indicative of operational capabilities of the wireless mobile communication apparatus.

14. The system of Claim 10, including an information storage apparatus coupled to said first resource control segment, said information storage apparatus for storing said information.

15. The system of Claim 14, wherein said first and second wireless communication interfaces are cooperable for wireless transmission of said information from said second resource control segment to said first resource control segment.

16. The system of Claim 14, wherein said information storage apparatus is provided in a data network.

17. The system of Claim 16, wherein said data network includes the internet.

18. The system of Claim 1, wherein said first and second resource control segments are cooperable for deciding whether communication resources will be allocated for the communication session.

19. The system of Claim 1, wherein said first resource control segment is provided in a further wireless mobile communication apparatus.

20. The system of Claim 1, wherein said resource control segments are cooperable for determining a distance over which the communication session will be conducted, and are further cooperable for selecting a frequency channel for the communication session based on said distance.

21. The system of Claim 20, wherein said resource control segments are cooperable to select for the communication session one of a frequency channel at a relatively lower frequency if the communication session will be conducted over a

relatively longer distance and a frequency channel at a relatively higher frequency if the communication session will be conducted over a relatively shorter distance.

22. The system of Claim 1, wherein said frequency spectrum other than frequency spectrum utilized by cellular operators implements frequency channels adjacent the frequency channels utilized by cellular operators.

23. The system of Claim 1, wherein when said resource allocation decision is to use frequency channels other than frequency channels utilized by cellular operators, frequency channels in the ISM band are selected if available and, if not available, frequency channels having frequencies adjacent said frequencies of said frequency channels utilized by said cellular operators are selected.

24 A system for controlling allocation of wireless communication resources, comprising:

a first resource control segment, and a first wireless communication interface connected to said first resource control segment;

a second resource control segment, and a second wireless communication interface connected to said second resource control segment, said second resource control segment and said second wireless communication interface provided together in a wireless mobile communication apparatus;

said first and second wireless communication interfaces cooperable to couple said first and second resource control segments for wireless communication; and

said first and second resource control segments each sharing available resource map (ARM) information with the other and thereafter arriving at an agreed upon resource allocation decision with respect to a wireless communication session involving the wireless mobile communication apparatus.

25. The system of Claim 24, wherein said resource allocation decision concerns transmit and receive frequencies used by said first and second wireless communication interfaces to communicate with each other.

26. The system of Claim 24, wherein said resource allocation decision includes a determination to use, or not to use, frequency channels other than those utilized by cellular operators, for additional communication between said first and second wireless communication interfaces

27. The system of Claim 24, wherein said first resource control segment and said first wireless communication interface are provided together in another wireless mobile communication apparatus

28. The system of Claim 1, wherein said frequency spectrum other than frequency spectrum utilized by cellular operators is in the ISM band.

29. The system of Claim 1, wherein the frequency spectrum utilized by cellular operators are those frequency channels used by fixed-site stations within communication range of said second wireless communication interface.

30. A system for controlling allocation of wireless communication resources, comprising:

a first resource control segment having access to information in a first resource map, and a first wireless communication interface connected to said first resource control segment;

a second resource control segment having access to information in a second resource map, and a second wireless communication interface connected to said second resource control segment, said second resource control segment and said second wireless communication interface provided together in a wireless mobile communication apparatus;

said first and second wireless communication interfaces cooperable to couple said first and second resource control segments for wireless communication; and

said first and second resource control segments sharing information available from said first and second resource maps and thereafter arriving at an agreed upon resource allocation decision with respect to a wireless communication session involving the wireless mobile communication apparatus.

31. A system for controlling allocation of wireless communication resources, comprising:

a first resource control segment, and a first wireless communication interface connected to said first resource control segment;

a second resource control segment, and a second wireless communication interface connected to said second resource control segment, said second resource control segment and said second wireless communication interface provided together in a wireless mobile communication apparatus;

said first and second wireless communication interfaces cooperable to couple said first and second resource control segments for wireless communication; and said first and second resource control segments each sharing with the other available transmit and receive frequencies and thereafter agreeing upon respective transmit and receive frequencies with respect to a wireless communication session involving the wireless mobile communication apparatus.

EVIDENCE APPENDIX

No documents are being submitted with the Appeal Brief.